

AIR COMPLIANCE INSPECTION REPORT
U.S. Environmental Protection Agency
Region VII
Environmental Services Division

**BRIDGETON LANDFILL
REPUBLIC SERVICES
13570 CHARLES ROCK ROAD
BRIDGETON, MISSOURI 63044**

TELEPHONE NUMBER: (314) 744-8166

AFS PLANT I.D. MO-189-00312

OCTOBER 2, 2012

INTRODUCTION

At the request of the Air and Waste Management Division (AWMD), the Environmental Field Compliance Branch (EFCB) conducted an announced Partial Compliance Evaluation (PCE) inspection at the Bridgeton Landfill in Bridgeton, Missouri. The PCE covered landfill gas leak detection provisions in 40 CFR 60, Subpart WWW, Standards of Performance for Municipal Waste Landfills.

PARTICIPANTS

Bridgeton Landfill:

Dave Vasbinder, Environmental Manager (dvasbinder@republicservices.com)
Michael Lambrich, Environmental Technician

Environmental Protection Agency, (EPA):

Peter Fulweiler, Environmental Engineer

INSPECTION PROCEDURES

I notified the facility during the week of September 17th of the inspection. I arrived at the facility at 9:00 a.m. on October 2nd. I presented my credentials and discussed with Mr. Vasbinder and Mr. Lambrich the areas I wanted to monitor and the records I wanted review.

Mr. Lambrich accompanied me as I monitored for leaks at the surface of the landfill along the northwest portion of the north cell in the landfill. I used a Thermo Electron TVA 1000 calibrated with 500 ppm and 10,000 ppm methane in air. We then looked at the landfill gas flares using a FLIR GF320 infrared camera. We also looked at a methane leak at the landfill surface with the FLIR camera.

I asked for, and Mr. Vasbinder provided, records of landfill gas collection, monitoring, and control as required by 40 CFR 60 Subpart WWW.

I held an exit briefing during which inspection findings were discussed. No information collected during the inspection was claimed confidential. Mr. Vasbinder was provided, and signed the Confidentiality Notice and the Receipt for documents. Those documents are included as attachment number 1 to this report.

PROCESS/FACILITY DESCRIPTION

The Bridgeton landfill is a 53 acre permitted municipal solid waste landfill. Waste was last accepted at the landfill in 2004. There are two areas covered by the permit, the north cell and the south cell. There was a reaction occurring in the south cell that is producing odors and a subsidence of the cell surface.

Areas adjacent to the landfill are referred to as the Westlake Landfill. The Westlake Landfill is an unpermitted, unlined disposal area in an old rock quarry that contains radioactive waste from uranium refining.

A map of the facility is included as attachment number 2.

OBSERVATIONS/FINDINGS

I started monitoring the North Cell of the landfill for surface leaks at 10:45 a.m. The TVA malfunctioned at 12:30 p.m. During that time I identified three leaks. The leaks were found at the following.

1. At D14.
2. At PEW60 CT11 (These designations are shown on the map.)
3. At GEW 1

These leaks, and my monitoring path, are marked on the landfill plan map enclosed as attachment number 2. I found a fourth leak but that leak was within 50 ft. of a previously identified, and at the time of the inspection, not completely repaired leak.

Bridgeton has been monitoring quarterly for surface leaks. For the past year it appears that two or three leaks are found per monitoring event. Monitoring records for the past four quarters are included as attachment number 3. A gas collection system equipment log is included as attachment number 4.

At 12:30 p.m. the TVA began to read 2000 ppm background and would not return to a normal background of 3-5 ppm. Up until that point the instrument appeared to be operating normally. I tried to re-calibrate the instrument but was unsuccessful. The instrument has been sent for repairs.

Bridgeton is currently operating three flares. Two enclosed flares and a candlestick flare are being used. The additional flares are being used to help remove gases being generated in the reaction that is occurring in the South cell. All three flares have permits and/or approval letters from the St. Louis County permitting authority. Copies of those permits and letters are included as attachment number 5. A copy of the Main Flare Temperature Log is included as attachment number 6. Performance test results for the main flare are included in attachment number 7.


I took FLIR videos of the flares in operations. I did not see evidence from the FLIR images that indicate that the flares were not operating properly. I went back to the first landfill gas leak found, at D14. I took a FLIR video that does show gas leaking. The FLIR videos are enclosed as attachment number 8. I left copies of the FLIR videos with Mr. Lambrich and Mr. Vasbinder.

I reviewed compliance records required by Subpart WWW. Bridgeton had the required records. Most of the records required are reported to EPA in the facility's annual reports. A copy of the facility's Design Capacity Report is included as attachment number 9.

SUMMARY

I conducted a landfill gas surface monitoring inspection at the Bridgeton Landfill. Due to failure of the monitoring instrument I was able to monitor only a portion of the landfill. I found three leaks during my monitoring. My monitoring path, showing the leaks, is enclosed on a plan drawing as attachment number 2.

There is some type of reaction or fire occurring in the south portion of the landfill. This is causing odor problems and a 30 to 40 foot subsidence of the top of the fill. An additional flare and a burner have been installed to collect gases from the south portion of the landfill. I took video images of these flares operating. I also took video of one of the methane leaks on the north portion of the landfill.



Peter Fulweiler
Environmental Engineer
Date: 11/1/12

Attachments:

1. Receipt for Documents and Confidentiality Notice. (2 sheets)
2. Facility Plan View Map. (2 1 sheets)
3. Quarterly Surface Monitoring Logs. (44 sheets)
4. Gas System Control Log. (4 sheets)
5. Flare Documentation. (49 sheets)
6. Main Flare Temperature Log. (1 sheet)

7. Main Flare Performance Test. (6 sheets)
8. FLIR Videos. (1 CD)8
9. Design Capacity Report. (5 sheets)